

Curriculum Vitae

Dr. Sajad Ahmad Bhat

Work Address: Assistant Professor. (TEQIP), Dept. of Chemistry, IUST, Awantipora, Pulwama, J&K, India, 192122	Gender: Male
Personal Address: Shangergund (Dandoosa), Rafiabad, Baramulla, J&K, India, 193303	Nationality: Indian
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I am an Inorganic/organometallic chemist with over seven years of research experience and around four years of teaching experience. My research interests are interdisciplinary spanning organometallic chemistry, coordination chemistry, supramolecular chemistry (designing nitrogen/phosphorus based ligands, studying their transition metal chemistry and applications in various catalytic organic transformations) and material chemistry (designing functional materials based on porous organic polymers/frameworks and porous metal organic frameworks for chemical separation, gas storage, conductivity, sensing, CO₂ reduction, water splitting). My research work aims to discover novel materials or molecules with potential applications in various fields.

EDUCATION

❖ Postdoctoral Fellow:

Chemistry and Physics of Materials Unit (CPMU), Molecular Materials Lab, **Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR)**, Bangalore, India

Mentor: Prof. [Tapas Kumar Maji](#)

❖ Research Associate:

Department of Chemistry, **Indian Institute of Technology Bombay (IITB)**, Mumbai, India

Mentor: Prof. [M. S. Balakrishna](#)

❖ Ph. D. (Inorganic Chemistry):

Department of Chemistry, **Indian Institute of Technology Bombay (IITB)**, Mumbai, India

Thesis title: Bisphosphines with Hetero-donor Atoms; Synthesis, Reactivity, Transition Metal Chemistry and Catalytic Studies.

Supervisor: Prof. [M.S. Balakrishna](#)

❖ M. Sc. (Inorganic Chemistry):

Department of Chemistry, **Aligarh Muslim University**, UP, India

❖ **B. Sc. (Hons. Chemistry):**

Department of Chemistry, **Aligarh Muslim University**, UP, India

TEACHING

- ❖ 03/2018-present—**Assistant Professor (TEQIP), Department of Chemistry, Islamic University of Science and Technology**, Pulwama, Kashmir, India
- ❖ 5/2016–10/2016—**Lecturer (contract), Department of Chemistry, Kashmir University**, Srinagar, Kashmir, India
- ❖ Autumn 2010—**Teaching Assistant (CH-117: Chemistry Laboratory), Department of Chemistry, Indian Institute of Technology Bombay**, India
- ❖ Spring 2011—**Teaching Assistant (CH-117: Chemistry Laboratory), Department of Chemistry, Indian Institute of Technology Bombay**, India
- ❖ Autumn 2011—**Teaching Assistant (CH-438: Chemistry of main group elements), Department of Chemistry, Indian Institute of Technology Bombay**, India
- ❖ Spring 2012—**Teaching Assistant (CH-103: Chemistry), Department of Chemistry, Indian Institute of Technology Bombay**, India

HONOURS AND AWARDS

- ❖ Qualified **CSIR-UGC** national level examination “**Eligibility for Lectureship (NET)**” in Chemical Sciences, by CSIR-UGC, New Delhi, India
- ❖ Qualified **GATE**, GATE Scholarship from the Ministry of Human Resources Development for pursuing Ph. D. at **IIT Bombay**, India
- ❖ Awarded **Senior Research Fellowship (SRF)** by **IIT Bombay**, India
- ❖ Awarded **MRS-Singapore Student Bursary** to attend 41st International Conference on Coordination Chemistry (ICCC-41) at Singapore
- ❖ Awarded **Best Poster Award in ICAM-JNCASR** (Institute for Complex Adaptive Matter, University of California, Davis) School on Clean and Renewable Energy Technologies via Chemical Route at JNCASR Bangalore, India

- ❖ Awarded **Best Poster/Oral Award in DST/SERB, NPDF Enclave** (NIPGR, New Delhi, India)

AFFILIATIONS

Member Chemical Research Society of India (LM 1963)

RESEARCH PROJECTS

1. Completed SERB, Govt. of India sponsored research project worth 19,20,000/INR during NPDF at JNCASR, Jakkur, Bangalore, India.
2. Working on a TEQIP/CRS project funded by NPIU, Govt. Of India worth 12,07,000/INR, at IUST, Awantipora, Pulwama, J&K, India.

PUBLICATIONS

1. **Sajad Ahmad Bhat**, Chayanika Das, Tapas Kumar Maji: Metallated azo-naphthalene diimide based redox-active porous organic polymer as an efficient water oxidation electrocatalyst. **J. Mater. Chem. A** **2018**, **6**, **19834-19842**. [RSC, Impact factor = 10]
2. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Gold(I) complexes of bisphosphines with bis(azol-1-yl)methane backbone: Structure of a novel dinuclear gold(I) complex $[(Au_2Cl)\{CH_2(1,2-C_3H_2N_2PPh_2)_3\}Cl]$. **Dalton Trans.** **2015**, **44**, **17696-17703**. [RSC, Impact factor = 4.2]
3. **Sajad Ahmad Bhat**, M. K. Pandey, Joel T. Mague and M. S. Balakrishna: Coordination of Bis(azol-1-yl)methane based Bisphosphines towards Ru^{II} , Rh^I , Pd^{II} and Pt^{II} : Synthesis, Structural characterization and Catalytic Applications. **Dalton Trans.** **2017**, **46**, **227-241**. [RSC, Impact factor = 4.2]
4. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Mono, tetranuclear and 1D polymeric copper(I) complexes of large bite bisphosphines containing O and N donor atoms. **Eur. J. Inorg. Chem.** **2015**, **3949-3958**. [Wiley Publications, Impact factor = 3.1]

5. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Transition metal chemistry of large-bite bisphosphines, N,N bis(diphenylphosphinobenzyl)-N-phenylamine and bis(2 diphenylphosphinobenzyl)ether. **J. Organomet. Chem.** 2016, 809, 21-30. [Elsevier, Impact factor = 2.2]
6. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Synthesis and structural characterization of copper(I) halide complexes containing bis(azol-1-yl)methane derived bisphosphines. **Inorg. Chem. Acta** 2016, 443, 243-250. [Elsevier, Impact factor = 2.1]
7. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Synthesis, structural and photoluminescence studies of copper(I) complexes containing bis(azol-1-yl)methane derived bisphosphines. **Polyhedron** 2016, 107, 190-195. [Elsevier, Impact factor = 2.1]
8. M. M. Siddiqui, M. Waheed, **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Application of quinoxaline based di-imidazolium salt in palladium catalyzed cross coupling reactions. **J. Chem. Sci.** 2015, 127, 879-884. [Springer, Impact factor = 1.3]
9. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Synthesis and structural characterization of metal carbonyl complexes of bis(azol-1-yl)methane derived bisphosphines. **Polyhedron Submitted 2020**. [Elsevier, Impact factor = 2.1]
10. **Sajad Ahmad Bhat**, A nitroaromatic colorimetric and fluorescent tripodal sensor based on isonaizid and triformylphluroglucinol. **ACS Omega** 2020 [Manuscript under preparation]

CONFERENCES/SYMPOSIUM/WORKSHOPS ATTENDED

Workshops Attended

1. Participated in **Faculty Development Program** (January 29—February 02, 2018), organized by Knowledge Incubation for Technical Education Quality Improvement Program (KIT), **Indian Institute of Technology Kanpur (IITK)**.
2. Participated in **Summer Training Program on Advanced Pedagogy and Digital Tools** (May 13—May 17, 2019), organized by **Indian Institute of Technology Kanpur (IITK)**.

3. Participated in **Orientation Workshop for PI's on Collaborative Research Scheme** (July 6, 2019), held at **AICTE, New Delhi**, organized by **NPIU/AICTE**.
4. Participated in **Two day Workshop on Outcome Based Education** (March 26–27, 2018), organized by **School of Technology, Islamic University of Science and Technology (IUST), Awantipora, Pulwama, J&K**
5. Participated in **One week Faculty Development Program** on Emerging Trends in Physical, Chemical and Mathematical Sciences (February 14–20, 2019), organized by **School of Sciences, Islamic University of Science and Technology (IUST), Awantipora, Pulwama, J&K**
6. Participated and organized **Two day National Workshop** on Nanoscience-Opportunities and Challenges (September 4–5, 2018), organized by **School of Sciences, Islamic University of Science and Technology (IUST), Awantipora, Pulwama, J&K**

International Conferences

7. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Bisphosphines containing N-, O-donor functionalities: Synthesis, structural and photoluminescence studies of copper(I) complexes. **41th International Conference on Coordination Chemistry (ICCC 41)**, **Suntec Singapore Convention and Exhibition Centre**[2014;Poster Presentation]

National Conferences/Schools

8. **Sajad Ahmad Bhat**, Chayanika Das, Tapas Kumar Maji: Metallated azo-naphthalene diimide based redox-active porous organic polymer as an efficient water oxidation electrocatalyst. **DST/SERB NPDF Enclave, NIPGR, New Delhi**, [2018; Oral Presentation]
9. **Sajad Ahmad Bhat**, Chayanika Das, Tapas Kumar Maji: Metallated azo-naphthalene diimide based redox-active porous organic polymer as an efficient water oxidation electrocatalyst. **ICAM-12CAM School on Clean and Renewable Energy Technologies via Chemical Route, JNCASR, Jakkur, Bangalore** [2017;Poster Presentation]
10. **Sajad Ahmad Bhat**, Chayanika Das, Tapas Kumar Maji: Metallated azo based redox active porous organic polymer (POP) for efficient electrochemical water oxidation. **13thJNC Research Conference on Chemistry of Materials, Vivanta Taj, Kovalam, Kerala** [2017;Poster Presentation]

11. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Biphosphines based on bis(azol-1-yl)methane backbone: Synthesis, transition metal chemistry and catalytic applications in suzuki-cross coupling reactions. **16th CRSI National Symposium in Chemistry (NSC-16)**, Department of Chemistry, Indian Institute of Technology Bombay, Mumbai [2014; Poster Presentation]
12. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Biphosphines with heterodonor atoms: Synthesis, transition metal chemistry and catalytic applications in suzuki-cross coupling reactions. **Symposium on Modern Trends in Inorganic Chemistry-XV (MTIC-XV)**, Department of Chemistry, Indian Institute of Technology Roorkee, Roorke. [2013;Poster Presentation]
13. **Sajad Ahmad Bhat**, Joel T. Mague and M. S. Balakrishna: Biphosphines based on bis(imidazol-1-yl) and bis(pyrazol-1-yl)methane backbone: Synthesis and transition metal chemistry. **In-House Symposium 2013**, Department of Chemistry, Indian Institute of Technology Bombay, Mumbai.[2013;Poster Presentation]
14. Participated in **3rd Indo-German Symposium on Frontier of Chemistry**, Department of Chemistry, Indian Institute of Technology Bombay, Mumbai [2011]

REFERENCES

1. **Prof. M. S. Balakrishna**
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2. **Prof. T. K. Maji**
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3. **Prof. G. Rajaraman**
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